



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0562; Directorate Identifier 2012-SW-038-AD;**

**Amendment 39-17068; AD 2012-11-05]**

**RIN 2120-AA64**

**Airworthiness Directives; Enstrom Helicopter Corporation Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are superseding an existing airworthiness directive (AD) for Enstrom Helicopter Corporation (Enstrom) Model F-28C, F-28C-2, F-28F, 280C, 280F, 280FX, TH-28, 480, and 480B helicopters to add another trim relay to the applicability and to revise the modification instructions. This AD is prompted by the discovery that another part-numbered trim relay, inadvertently omitted from the current AD, may contain the same unsafe condition. These actions are intended to prevent failure of the cyclic trim system and subsequent loss of control of the helicopter.

**DATES:** This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [insert date 15 days after date of publication in the FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of January 23, 2012 (77 FR 729, January 6, 2012).

We must receive comments on this AD by [insert date 60 days after date of publication in the FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**EXAMINING THE AD DOCKET:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800- 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this AD, contact Enstrom Helicopter Corporation, 2209 22nd St., Menominee, Michigan, 49858-0490; telephone: 906-863-1200; email: [customerservice@enstromhelicopter.com](mailto:customerservice@enstromhelicopter.com); website:

[http://www.enstromhelicopter.com/enstrom\\_new/enstrom\\_support\\_tec.html](http://www.enstromhelicopter.com/enstrom_new/enstrom_support_tec.html). You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** Gregory J. Michalik, Enstrom Program Manager, FAA, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois, 60018; telephone (847) 294-7135; email: [gregory.michalik@faa.gov](mailto:gregory.michalik@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

## **Discussion**

On December 14, 2011, we issued AD 2011-26-10, amendment 39-16900 (77 FR 729, January 6, 2012) for Enstrom Model F-28C, F-28C-2, F-28F, 280C, 280F, 280FX, TH-28, 480, and 480B helicopters with a trim relay, part-number (P/N) KUP14D55-472, M83536/10-015M, or M83536/10-024M. That AD requires modifying the lateral and longitudinal trim actuator assemblies by replacing the actuator and limit switch bracket to provide a positive stop for the trim actuator. In the event of a trim actuator runaway, the new bracket will stop the actuator, causing the circuit breaker to trip before any significant loss of control occurs. After the trim actuator assemblies are modified, that AD requires performing operational (ground) and flight tests to determine that the trim relay is working correctly. That AD was prompted by reports of 4 failures in the cyclic trim system in the field, 2 that occurred on the Enstrom Model 480B helicopter and 2 that occurred on the Enstrom Model F28 helicopter. These failures resulted in reduced controllability of the helicopter. We issued that AD to prevent failure of the cyclic trim system and subsequent loss of control of the helicopter.

## **Comments**

Since we issued immediately adopted AD 2011-26-10, we received one comment from Enstrom, the manufacturer, and Revision 4 to Enstrom Service Directive Bulletin No. 0110, dated January 23, 2012 (SDB 0110), for Model F-28C, F-28C-2, F-28F, 280C, 280F, and 280FX helicopters. In its comment, the manufacturer stated that the list of affected part numbers for the F-28 series and 280 series helicopter should include P/N KUP14D55-24 and that this P/N was erroneously left off of Enstrom's original Service Directive Bulletin. It stated that the same safety concerns also exist with this relay and

that adding this P/N will not affect the cost analysis or fleet size as these aircraft were included in the initial calculations.

We agree with the commenter that the additional part numbered relay contained in Enstrom SDB 0110 should be added to the applicability section of the AD because it may contain the same unsafe condition. Also, we agree that the revised compliance instructions contained in SDB 0110 should be required.

#### **FAA's Determination**

We are issuing this AD because we evaluated all the relevant information, including the comment received and the revised service information, and determined the unsafe condition described previously is likely to exist or develop in other helicopters of these same type designs.

#### **Related Service Information**

We reviewed Enstrom SDB No. T-039, Revision 3, dated July 6, 2011 (SDB T-039), for Model TH-28, 480, and 480B helicopters and Enstrom SDB 0110, for Model F-28C, F-28C-2, F-28F, 280C, 280F, and 280FX helicopters. SDB T-039 specifies, for helicopters with a trim relay, P/N M83536/10-024M, procedures for modifying the lateral and longitudinal trim actuator assembly using the cyclic trim assembly kit (modification kit), P/N 4230045-1, and specifies performing an operational check and flight test to determine if the trim is operating correctly after the modification. SDB 0110 specifies, for helicopters with a trim relay, P/N KUP14D55-24, KUP14D55-472, M83536/10-015M, or M83536/10-024M, procedures for modifying the lateral and longitudinal trim actuator assembly using the modification kit, P/N 28-01063-1, and specifies performing an operational check and flight test to determine if the trim is

operating correctly after the modification. The SDBs state that the modification kits contain the upgraded bracket.

### **AD Requirements**

In addition to those part-numbered trim relays contained in the applicability section of the current AD 2011-26-10, this AD adds trim relay P/N KUP14D55-24. Also, this AD adopts the revised modification instructions for the Model F-28C, F-28C-2, F-28F, 280C, 280F, and 280FX helicopters contained in SDB 0110. Otherwise, this AD retains most of the requirements of AD 2011-26-10, which requires modifying the lateral and longitudinal trim actuator assembly, using modification kit, P/N 28-01063-1, for the Model F-28C, F-28C-2, F-28F, 280C, 280F, and 280FX helicopters and modification kit, P/N 4230045-1, for the Model TH-28, 480, and 480B helicopters, and verifying that the modification has been completed properly by performing an operational and flight test after the modification is complete.

The actions required by this AD are to be accomplished by following specified portions of the SDBs described previously.

### **Differences between this AD and the Service Information**

The SDBs specify, before further flight, to insert a special addendum into the Emergency Procedures section of the Flight Manual, and this AD does not require this action.

### **Costs of Compliance**

We estimate that this AD will affect 207 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. For Model 480, 480B, and TH-28, modifying the actuator assemblies will require 8 work

hours at a cost of \$85 per hour and parts will cost \$327; the cost per helicopter will be \$1,007. For Model 280C, 280F, 280FX, F-28C, F-28C-2, and F-28F, modifying the actuator assemblies will require 8 work hours at a cost of \$85 per hour; parts will cost \$383; and the cost per helicopter will be \$1,063.

#### **FAA’s Justification and Determination of the Effective Date**

Providing an opportunity for public comments prior to adopting these AD requirements would delay implementing the safety actions needed to correct this known unsafe condition. Therefore, we find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because the required corrective actions must be accomplished within 5 hours time-in-service, a very short time period based on the *average* flight-hour utilization rate of these helicopters.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable and contrary to the public interest and that good cause exists for making this amendment effective in less than 30 days.

#### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA



amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Amendment 39-16900 (77 FR 729, January 6, 2012), and adding the following new airworthiness directive (AD):

2012-11-05 **ENSTROM HELICOPTER CORPORATION:** Amendment 39-17068; Docket No. FAA-2012-0562; Directorate Identifier 2012-SW-038-AD.

#### **(a) Applicability.**

This AD applies to the Enstrom Model F-28C, F-28C-2, F-28F, 280C, 280F, 280FX, TH-28, 480, and 480B helicopters with a trim relay, part-number (P/N) KUP14D55-24, KUP14D55-472, M83536/10-015M, or M83536/10-024M, certificated in any category.

Note to paragraph (a) of this AD: This AD does not apply to the specified helicopters with a reversible trim motor, P/N 28-16621 (Ford Motor Company C1AZ-14553A) or P/N AD1R-10 (Signal Electric).

#### **(b) Unsafe Condition.**

This AD defines the unsafe condition as a failure of a trim relay in the cyclic trim system. This condition could result in reduced controllability of the helicopter and subsequent loss of control of the helicopter.

**(c) Other Affected ADs.**

This AD supersedes AD 2011-26-10, Amendment 39-16900 (77 FR 729, January 6, 2012).

**(d) Effective Date.**

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(e) Compliance.**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(f) Required Actions.**

Within 5 hours time-in-service (TIS) or at the next annual or 100 hour TIS inspection, whichever occurs first:

(1) For the Enstrom Model F-28C, F-28C-2, F-28F, 280C, 280F, and 280FX helicopters, modify the lateral and longitudinal trim actuator assemblies using the cyclic trim assembly kit (modification kit), P/N 28-01063-1, in accordance with the instructions in paragraph 6.1 of the Enstrom Service Directive Bulletin (SDB) No. 0110, Revision 4, dated January 23, 2012 (SDB No. 0110 R4), except when the instructions specify using “Aeroshell 22 grease” or “VC-3 Vibra-tite thread locker,” you may use an equivalent product.

(2) For the Enstrom Model TH-28, 480, and 480B helicopters, modify the lateral and longitudinal trim actuator assemblies using the modification kit, P/N 4230045-1, in accordance with the instructions in paragraph 6.1 of the Enstrom SDB No. T-039, Revision 3, dated July 6, 2011 (SDB No. T-039 R3), except when the instructions specify

using “Aeroshell 22 grease” or “VC-3 Vibra-tite thread locker,” you may use an equivalent product, and you are not required to contact Enstrom Customer Service.

(3) After modifying the lateral and longitudinal trim actuator assemblies in accordance with paragraphs (f)(1) or (f)(2) of this AD, before further flight, operationally test the trim limits in accordance with paragraph 6.2. of the SDB for your model helicopter, and determine during a flight test whether there is appropriate trim authority in accordance with paragraph 6.3. of the SDB for your model helicopter.

**(g) Special Flight Permits.**

A one-time special-flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 provided the helicopter is operated with the trim system circuit breaker pulled.

**(h) Alternative Methods of Compliance (AMOCs).**

(1) The Manager, Chicago Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Gregory J. Michalik, Enstrom Program Manager, FAA, Chicago Aircraft Certification Office, 2300 East Devon Avenue, Room 107, Des Plaines, Illinois, 60018; telephone (847) 294-7135; fax (847) 294-7834; email: [gregory.michalik@faa.gov](mailto:gregory.michalik@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(i) Subject.**

Joint Aircraft Service Component (JASC) Code: 6710: Main Rotor Control.

**(j) Material Incorporated by Reference.**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Enstrom Service Directive Bulletin No. 0110, Revision 4, dated January 23, 2012, for Model F-28C, F-28C-2, F-28F, 280C, 280F, and 280FX helicopters.

(4) The following service information was approved for IBR on January 23, 2012 (77 FR 729, January 6, 2012).

(i) Enstrom Service Directive Bulletin No. T-039, Revision 3, dated July 6, 2011, for Model TH-28, 480, and 480B helicopters.

(5) For service information identified in this AD, contact Enstrom Helicopter Corporation, 2209 22nd St., Menominee, Michigan, 49858-0490; telephone: 906-863-1200; email: [customerservice@enstromhelicopter.com](mailto:customerservice@enstromhelicopter.com); website: [http://www.enstromhelicopter.com/enstrom\\_new/enstrom\\_support\\_tec.html](http://www.enstromhelicopter.com/enstrom_new/enstrom_support_tec.html).

(6) You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call

202-741-6030, or go to:

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Fort Worth, Texas, on May 17, 2012.

Kim Smith,

Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

[FR Doc. 2012-14634 Filed 06/15/2012 at 8:45 am; Publication Date: 06/18/2012]